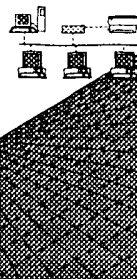


BIOTECHNOLOGY
SYSTEMS
BRANCH



**RAW SEQUENCE LISTING
ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/009,916
Source: Pur/po
Date Processed by STIC: 1/14/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER
VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom, including:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission
User Manual - ePAVE)

2. U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202

3. Hand Carry directly to:

U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202

Or

U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202

4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/009916

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.

PCT10

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/009,916

DATE: 01/14/2002

TIME: 07:50:28

Input Set : A:\ES.txt

Output Set: N:\CRF3\01142002\J009916.raw

3 <110> APPLICANT: Agriculture Victoria Services Pty Ltd AND Australian Pork Limited
 4 AND Pfizer Products Inc.
 8 <120> TITLE OF INVENTION: Lawsonia derived gene and related SodC polypeptides,
 peptides and
 9 proteins and their uses.

W--> 11 <130> FILE REFERENCE:

C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/009,916

C--> 15 <141> CURRENT FILING DATE: 2001-11-13

17 <150> PRIOR APPLICATION NUMBER: US 60/133,989

19 <151> PRIOR FILING DATE: 1999-05-12

21 <160> NUMBER OF SEQ ID NOS: 5

23 <170> SOFTWARE: PatentIn Ver. 2.0

27 <210> SEQ ID NO: 1

29 <211> LENGTH: 180

31 <212> TYPE: PRT

33 <213> ORGANISM: Lawsonia intracellularis

36 <400> SEQUENCE: 1

38 Met Lys Ile Lys Leu Phe Phe Val Thr Ser Ile Val Thr Ile Ser Leu

40 1 5 10 15

43 Leu Thr Ser Ile Thr Ser Val Val Leu Ala Cys Ser Val Thr Ser Glu

45 20 25 30

48 Val His Met Ile Asp Asp Asn Gly Ile Lys Gln Ser Ile Gly Thr Val

50 35 40 45

53 Thr Phe Thr Asp Thr Asp Lys Gly Leu Gln Ile Lys Thr Asp Leu Lys

55 50 55 60

58 Gly Leu Pro Ala Gly Glu His Gly Phe His Ile His Glu Gly Gly Ser

60 65 70 75 80

63 Cys Gly Pro Ala Glu His Asp Gly His Leu Thr Ala Gly Leu Gln Ala

65 85 90 95

68 His Gly His Tyr Asp Pro Asp Lys Thr Gly Lys His Glu Gly Pro Leu

69 100 105 110

72 Gly Asn Gly His Lys Gly Asp Leu Pro Arg Leu Val Val Lys Ala Asp

74 115 120 125

77 Gly Ile Ala Lys Glu Thr Leu Leu Ala Pro Arg Leu Thr Val Lys Glu

79 130 135 140

82 Ile Lys Gly Arg Thr Val Met Ile His Ala Gly Gly Asp Asn Tyr Ser

84 145 150 155 160

87 Asp Lys Pro Leu Pro Leu Gly Gly Gly Gly Ala Arg Ile Ala Cys Gly

89 165 170 175

92 Val Ile Pro Asn

94 180

98 <210> SEQ ID NO: 2

100 <211> LENGTH: 543

102 <212> TYPE: DNA

104 <213> ORGANISM: Lawsonia intracellularis

107 <220> FEATURE:

109 <221> NAME/KEY: CDS

111 <222> LOCATION: (1)..(540)

Does Not Comply
 Corrected Diskette Needed

8.3

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/009,916

DATE: 01/14/2002

TIME: 07:50:28

Input Set : A:\ES.txt

Output Set: N:\CRF3\01142002\J009916.raw

```

114 <400> SEQUENCE: 2
116 atg aaa ata aaa cta ttt ttt gtt act tca ata gta act att tct ctc 48
118 Met Lys Ile Lys Leu Phe Phe Val Thr Ser Ile Val Thr Ile Ser Leu
120 1 5 10 15
123 tta act agt att act agt gta gta tta gca tgt tct gtt act tca gaa 96
125 Leu Thr Ser Ile Thr Ser Val Val Leu Ala Cys Ser Val Thr Ser Glu
127 20 25 30
130 gtc cat atg att gat gac aat gga ata aaa cag agt ata ggc aca gta 144
132 Val His Met Ile Asp Asp Asn Gly Ile Lys Gln Ser Ile Gly Thr Val
134 35 40 45
137 act ttt act gat aca gat aaa ggt cta caa ata aaa act gat ctt aaa 192
139 Thr Phe Thr Asp Thr Asp Lys Gly Leu Gln Ile Lys Thr Asp Leu Lys
141 50 55 60
144 ggc ctt cct gca gga gaa cat ggt ttt cat atc cat gaa gga gga tca 240
146 Gly Leu Pro Ala Gly Glu His Gly Phe His Ile His Glu Gly Gly Ser
148 65 70 75 80
151 tgt gga cct gct gag cat gat gga cat cta aca gct gga ctc caa gct 288
153 Cys Gly Pro Ala Glu His Asp Gly His Leu Thr Ala Gly Leu Gln Ala
155 85 90 95
157 cat ggt cat tat gat cct gac aaa aca gga aaa cat gaa gga cct ctt 336
159 His Gly His Tyr Asp Pro Asp Lys Thr Gly Lys His Glu Gly Pro Leu
161 100 105 110
163 ggt aat gga cac aag gga gac tta cct aga ctt gta gtt aaa gct gat 384
165 Gly Asn Gly His Lys Gly Asp Leu Pro Arg Leu Val Val Lys Ala Asp
167 115 120 125
170 gga ata gca aaa gaa aca ctc tta gct cca aga tta aca gtt aaa gaa 432
172 Gly Ile Ala Lys Glu Thr Leu Leu Ala Pro Arg Leu Thr Val Lys Glu
174 130 135 140
177 att aag ggt cgt aca gtt atg atc cat gct ggt ggt gat aac tat tca 480
179 Ile Lys Gly Arg Thr Val Met Ile His Ala Gly Gly Asp Asn Tyr Ser
181 145 150 155 160
184 gat aaa cct ctt cct ctt ggc ggt ggt ggt gct cgt ata gct tgt ggt 528
186 Asp Lys Pro Leu Pro Leu Gly Gly Gly Gly Ala Arg Ile Ala Cys Gly
188 165 170 175
191 gtt ata cca aac tag 543
193 Val Ile Pro Asn
195 180
198 <210> SEQ ID NO: 3
200 <211> LENGTH: 10
202 <212> TYPE: PRT
204 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
209 <223> OTHER INFORMATION: Description of Artificial Sequence:protective
211 peptide
215 <400> SEQUENCE: 3
217 Met Gly Thr Thr Thr Thr Thr Ser Leu
219 1 5 10
224 <210> SEQ ID NO: 4
226 <211> LENGTH: 58

```

RAW SEQUENCE LISTING

DATE: 01/14/2002

PATENT APPLICATION: US/10/009,916

TIME: 07:50:28

Input Set : A:\ES.txt

Output Set: N:\CRF3\01142002\J009916.raw

228 <212> TYPE: DNA
230 <213> ORGANISM: Artificial Sequence
234 <220> FEATURE:
236 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide
240 <400> SEQUENCE: 4
242 ggccatgggt accaccacca ccaccacctc tctgtctgtt acttcagaag tccatatg 58
247 <210> SEQ ID NO: 5
249 <211> LENGTH: 33
251 <212> TYPE: DNA
253 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
259 <223> OTHER INFORMATION: Description of Artificial Sequence: oligonucleotide
263 <400> SEQUENCE: 5
265 ggctctagag gtatataaat ataaagaggt atg 33

see item 11 on Error
summary sheet

give
source

of
genetic
material

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/009,916

DATE: 01/14/2002
TIME: 07:50:29

Input Set : A:\ES.txt
Output Set: N:\CRF3\01142002\J009916.raw

L:11 M:201 W: Mandatory field data missing, FILE REFERENCE
L:13 M:270 C: Current Application Number differs, Replaced Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date